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CoolAll Your Life

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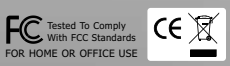

SopranoFx

VH1000BWS

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Chapter 1. Product Introduction

▶ 1.1 Specification

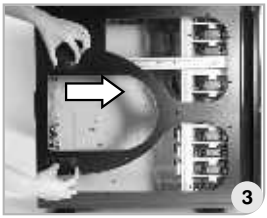
Model	VH1000BWS
Case Type	Full Tower
Side Panel	Transparent window
Dimension (H*W*D)	540.0 x 220.0 x 580.0 mm (21.3 x 8.7 x 22.8 inch)
Cooling System	Front (Intake) : 120 x 120 x 25 mm, 1300rpm, 17dBA Rear (Exhaust) : 120 x 120 x 25 mm blue LED fan, 1300rpm, 17dBA; 90 x 90 x 25 mm, 1800rpm, 19dBA Top (Exhaust) : 90 x 90 x 25mm, 1800rpm, 19dBA
Drive Bays Front Accessible Internal	11 Up tp 10 x 5.25", 2 x 3.5" 6 x 3.5"
Material	Chassis : 1.0mm SECC Front door : Aluminum
Color	Black
Expansion Slots	7
Motherboards	Micro ATX, ATX, Extend ATX
PSU	Standard ATX PSII (Option)
I/O Ports	USB 2.0 x 2, e-SATA connector x 1, HD Audio
Features	- Piano black finish - Brushed aluminum front door - e-SATA connector built-in - Support up to eleven 5.25" drive bays - Ventilation openings on top (62% opening ratio) - High efficiency ventilation : 120mm silent fans at front and rear, 90mm fans on top and rear - Removable HDD cage

Chapter 2 Case Mechanical Operation

▶2.1 How to open the side panel

To remove the side panel, please remove upper and bottom thumb screws on the back of the case.

Please find out the side panel key in the back of the chassis, then open the side panel as shown.

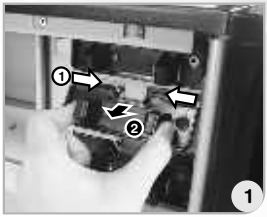


Push the button then swing out the side panel.

▶2.2 Lock operation

Insert the provided key and turn it counterclockwise to open the front door.

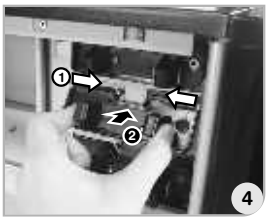
▶ 2.3 Installing 5.25" device



Squeeze and pull outward the tool-free clip.

Remove the drive bay cover from the selected location.

Then insert the device into the 5.25" drive bay.



Squeeze and push inward the tool-free clip.

Finish installation.

▶ 2.4 Installing 3.5" HDD

Unscrew the thumb screw of the removable HDD cage.

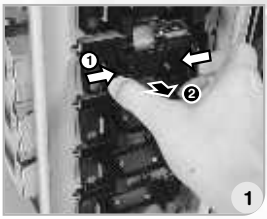
Push the handle down and pull the cage out.

Silde HDD into the cage.

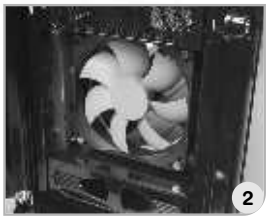
Screw up and fasten HDD by screws.

Slide the cage back and screw up the thumb screw.

▶ 2.5 Front removable fan cage



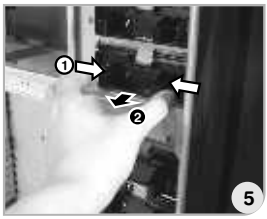
Squeeze and pull outward the tool-free clip.
Note: Front removable fan cage is secured by 3 tool-free clips. Be sure to free these 3 tool-free clips.



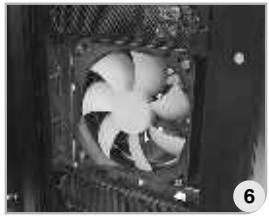
After loosen tool-free clips, remove 3 drive bay covers located in front of the fan cage.

Then slide the fan cage outward to remove it.

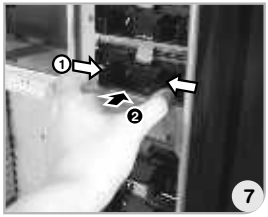
Remove other 3 drive bay covers at desired location for the fan cage.



Squeeze and pull outward the tool-free clips at desired location.



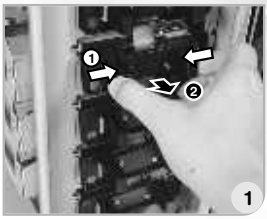
Slide the fan cage back to the drive bays.



Squeeze and push inward the tool-free clips to secure the fan cage.

Place back the drive bay covers removed earlier.

▶ 2.6 Installing 3.5" HDD (front fan cage)

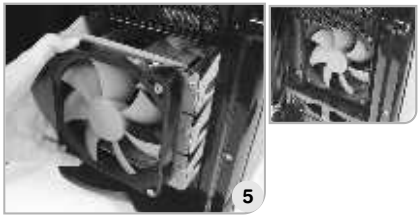


Squeeze and pull outward the tool-free clips of the front HDD cage.

Remove the drive bay covers and slide the fan cage outward to remove it.

Slide HDD into the cage.

Screw up and fasten HDD by screws.

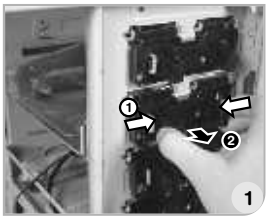


Slide the cage back to drive bays.

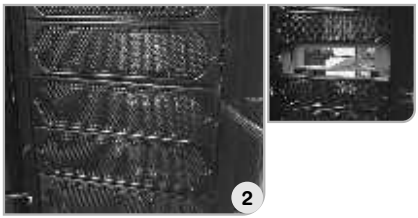
Squeeze and push inward the tool-free clips to secure the fan cage.

▶2.7 5.25" to 3.5" drive tray device installation

Installing Hard Drive to Device Tray

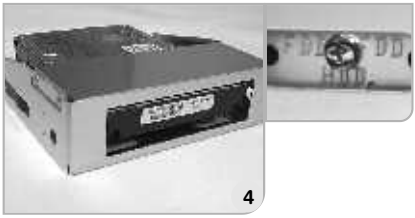


Squeeze and pull outward the tool-free clip.

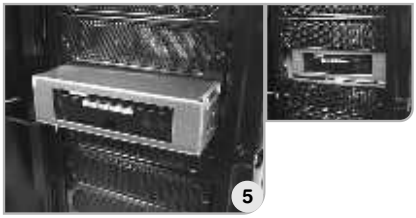


Remove the drive bay cover and unscrew the screws at both side.

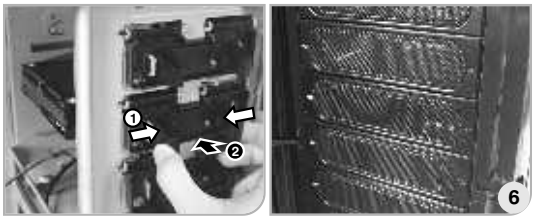
Slide out the device tray.



Fasten HDD on device tray by screws.

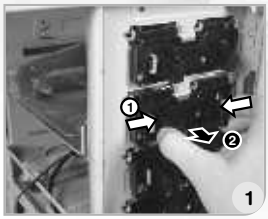


Slide the device tray back to drive bay.

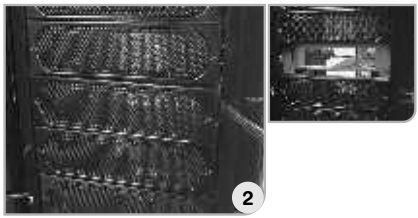


Squeeze and push inward the tool-free clip to secure the device tray and put back the drive bay cover.

Installing Floppy Disk Drive to Device Tray



Squeeze and pull outward the tool-free clip.

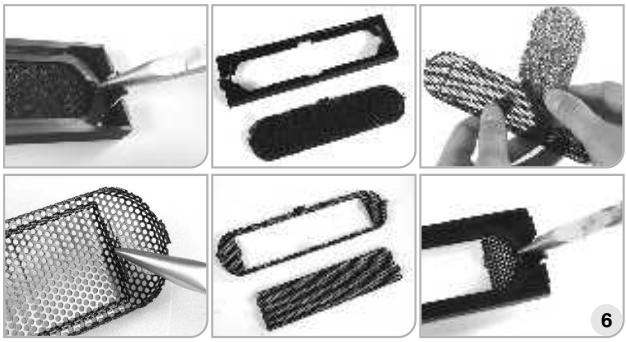


Remove the drive bay cover and unscrew the screws at both side.

Slide out the device tray.

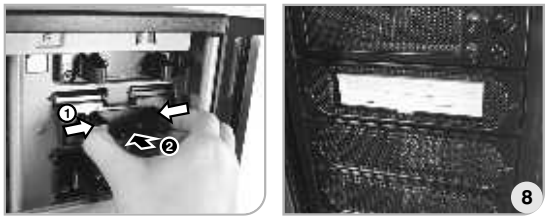
Insert floppy disk drive into the device tray. Secure FDD with screws from both side of device tray marked FDD.

Slide back the device tray.



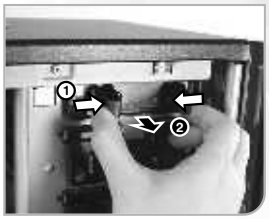
Remove mesh from drive bay cover as shown above.

Put back drive bay cover.

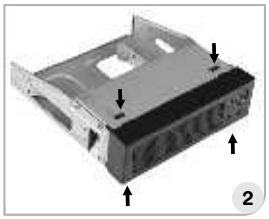


Squeeze and push inward the tool-free clip to secure the device tray.

▶ 2.8 Installing 3.5" device to drive tray with power button

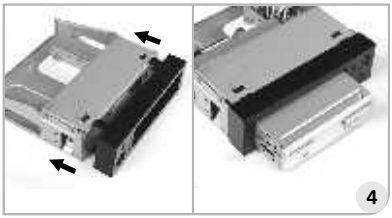


Squeeze and pull outward the tool-free clip securing the drive tray with power button. Slide outward to remove it.

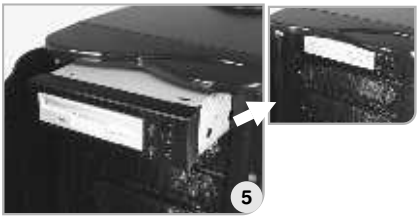


Squeeze both top and bottom portion of drive tray cover pictured top to remove the front cover.

Remove mesh from the cover.

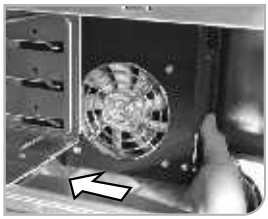


Place cover back to drive tray to its original position. Insert 3.5" device and fasten by screws.

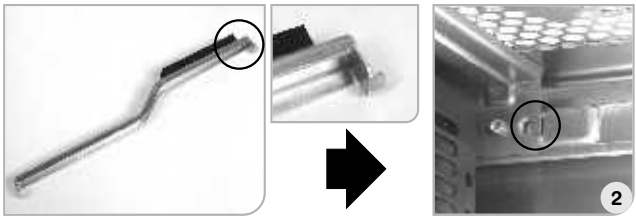


Insert back the device tray as shown above. Squeeze and push inward the tool-free clip to secure the device tray. **Note: Drive tray with power button can be moved to any drive bay as desired.**

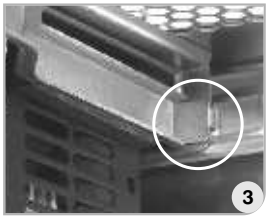
▶ 2.9 Installing power supply



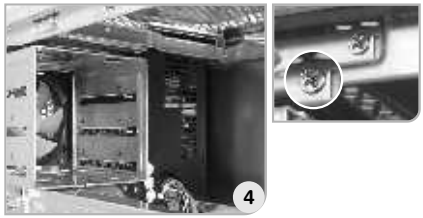
Install power supply unit as shown.



Locate the hook of PSU supporter on the hole which is marked in picture above.

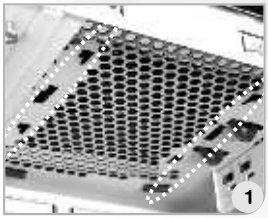


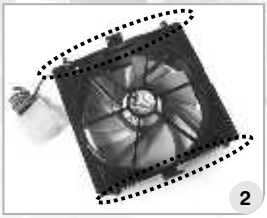
Swing the supporter to its proper position as shown.



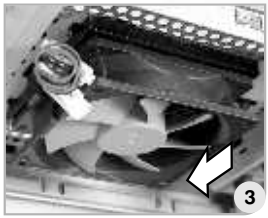
Secure the supporter with screw.

▶ 2.10 Installing the fan on top of the case



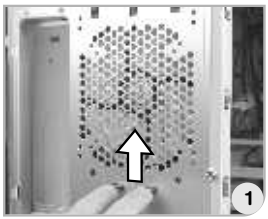


Press-in 2 clips on the side of fan



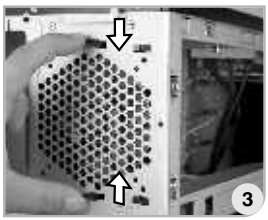
Align all clips with mounting holes, then push-in the fan against case body to secure it.

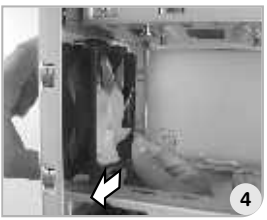
▶ 2.11 How to remove the fan & fan holder



12cm rear fan

Push fan clip upward to loose fan, then remove fan holder from inside.





9cm rear fan

To remove fan & fan holder by press-in clips then pull both from inside. Please see picture as shown.

▶ 2.12 Air cooling system

Top (Exhaust) :
90 x 90 x 25mm,
1800rpm, 19dBA

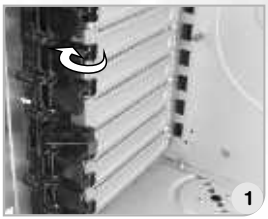
Front (intake) :
120 x 120 x25 mm
blue LED fan,
1300rpm, 17dBA

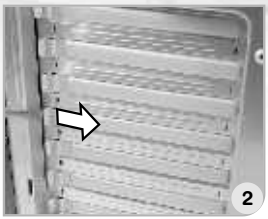
Rear (Exhaust) :
- 90 x 90 x 25mm,
  1800rpm, 19dBA
- Rear HDD cooling

Rear (Exhaust) :
120 x 120 x25 mm
blue LED fan,
1300rpm

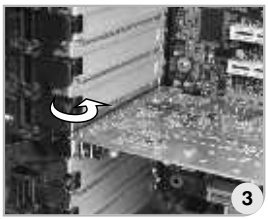
4-pin connector:
connect to PSU

▶ 2.13 PCI slot tool-free usage





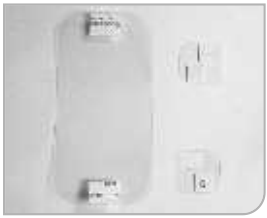
Open the plastic clip then take off the PCI bracket as follow.



Locate Graphic Card to the motherboard through fixing it on the space of PCI bracket and secure the Graphic Card as shown.

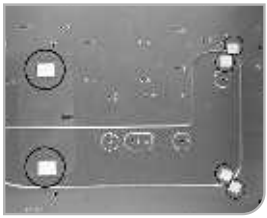
Chapter3 Motherboard & Leads Installation

▶3.1 Before installing motherboard

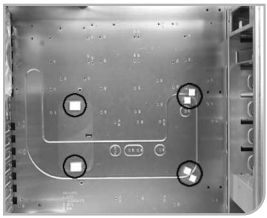


Inside the accessory box, please locate the Mylars (clear plastic films).

***Note: Due to the unique design of the Soprano Fx Chassis, these Mylar tapes are included to prevent ATX motherboards from contacting the chassis.**



Remove the adhesive backing and place the Mylars over each locations as shown.



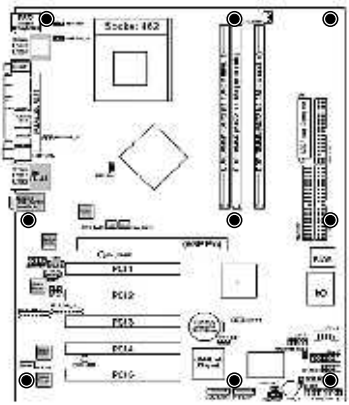
Completed. Please note the Mylar tapes included are transparent. The image here is for reference only.

▶ 3.2 Motherboard installation

Each motherboard has different standoff layout. It is highly suggested that you refer to your motherboard's manual when installing motherboard into the Case. Soprano Fx is applicable with Extend ATX, ATX & Micro ATX motherboards. Your motherboard may require a special I/O Panel, which should be included with your motherboard.

Placement Direction:
When installing the motherboard, make sure you follow the direction provided by your motherboard manufacturer. On most standard motherboards, the edge with external ports goes to the rear part of the chassis. It is highly recommended that you install CPU, heat sink and modular components before fixing the motherboard inside the chassis.

This side towards the rear of the chassis



◉ = the locations of the screw holes. Note these locations and place included standoffs on the chassis first.

Above illustration is a sample of what the motherboard's layout. For more detail screw hole placement, please refer to your motherboard manual.

▶ 3.3 Case LED connection

On the front of the case, you can find some LEDs and switch leads (POWER SW*1, POWER LED*1, H.D.D. LED*1, RESET SW*1). Please consult user manual of your motherboard manufacturer, then connect these leads to the panel header on the motherboard. These leads are usually labeled; if not, please trace them back to the case front to find out their source.

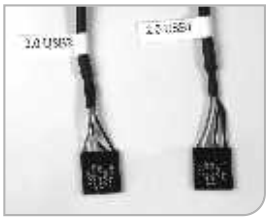
- **POWER LED**
  connects to your M/B at the PLED
- **POWER SW**
  connects to the PWR connector on the motherboard.
- **H.D.D LED**
  connects to the 2-pin labeled HDD LED connector.
- **RESET SW**
  connects to the RSW connector on the motherboard
- **SPEAKER**
  connector: find out the 4-pin labeled SPEAKER on the M/B then connect it.

▶ 3.4 USB 2.0 connection

USB connection

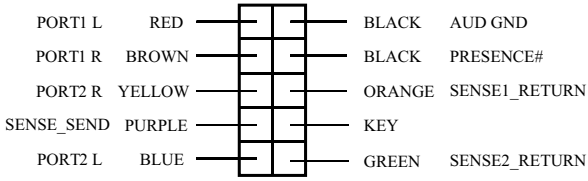
Please consult your motherboard manual to find out the section of "USB connection".

USB2.0 connection				
M/B layout (Ex: ASUS)		Case layout		
1	USB+5V	VCC 1	Red	USB 1
2	LDM1	DATA-1	White	
3	LDP1	DATA+1	Green	
4	GND	GND 1	Black	
5	NC	SHIELD 1	Black	
6	USB+5V	VCC 2	Red	USB 2
7	LDM2	DATA-2	White	
8	LDP2	DATA+2	Green	
9	GND	GND 2	Black	
10	--	SHIELD 2	Black	

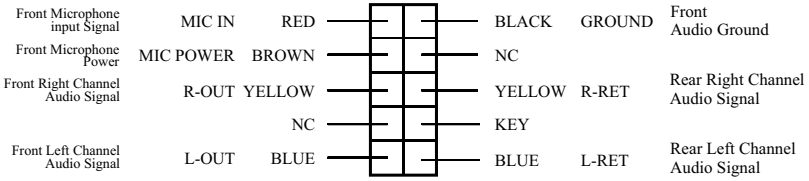


▶ 3.5 Audio connection

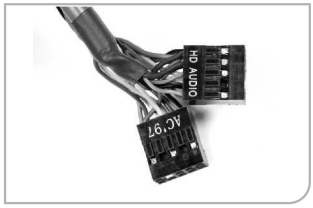
- Please refer to the following illustration of Audio connector and your motherboard user manual.
- Please select the motherboard which used AC'97 or HD Audio (Azalia), (be aware of that your audio supports AC'97 or HD Audio (Azalia)) or it will damage your device(s).
- On some motherboards, the connectors for Audio are not the same as the drawing below. Please check with your motherboard manual before installing.



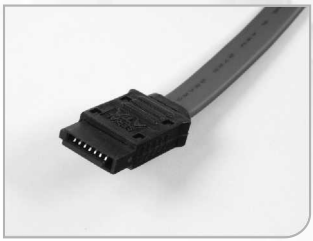
AUDIO AZALIA Function



AUDIO AC'97 Function



▶ 3.6 eSATA connection

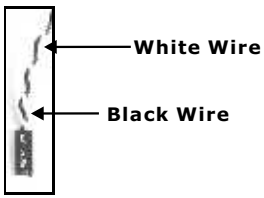


Connect this to your motherboard at SATA.

▶ 3.7 Intrusion open alarm function

1. To find out the cable with 2pin connector ("Micro SW") from the rear of inside the chassis.

2. To find out the position of Chassis Alarm on your motherboard. (please consult your motherboard manual)



Note:
If you cannot find an intrusion alert function on your motherboard, chances are high that your motherboard does not support this function. Please tuck away this wire and do not utilize this function.

Chapter 4 Other

▶ 4.1 Toughpower / Purepower / TR2 power supply series (optional)

The Thermaltake Power Supply series specification meets latest Intel & AMD dual & Quad core processors and NVIDIA & AMD high performance graphic cards; it offers plenty of functions, which mainly include:

1. Automatic Fan Speed Control: All power supply can detect the inside heat and automatically adjust the fan speed to provide adequate airflow.
2. Ultra Silent: Ball bearing fans with high reliability 140mm or 120mm cooling fan and super low acoustic noise under all load condition.
3. Modularized Cable Management: To eliminate clutter and improve airflow inside the case.
4. Dedicated Graphic Card Power: reduce the loading on current PSU and no need to upgrade current PSU while running multi graphic cards mode.

The functions can assure all Thermaltake Power Supply meets the balance in noise control and heat exhausted. All power supply provides complete protection function as follow:

1. Over power protection.
2. Short circuit protection on all output.
3. Over voltage protection / Under voltage protection.
4. Over current protection.
5. Over temperature protection.

Besides, Thermaltake enables the quality assurance of all power supply: 100% Hi-POT and ATE Function Test, 100% Burn-In and AC Input cycled on/off under high temperature condition. Furthermore, it has been approved by **UL, CUL, TUV, CB, FCC, CE, and BSMI.**

There are three main products line of Thermaltake PSU which divided into Toughpower, Purepower (include Purepower RX) and TR2 (include TR2 RX) series. Please refer to

http://www.thermaltake.com/product/Power/power_index.asp